ELSEVIER

Bioenergetics
(including Reviews on Bioenergetics)
Vol. 1363, 1998

BIOCHIMICA ET BIOPHYSICA ACTA
BBA

Cumulative Contents

Information for Contributors *vii*

Rapid reports

Tyrosine Y_Z and Y_D of photosystem II. Comparison of optical spectra to those of tyrosine oxidised by pulsed radiolysis
L.P. Candeias, S. Turconi and J.H.A. Nugent (UK) 1

Effect of phosphate residue of NADPH on the interaction between catalytic domains of a multifunctional polyketide synthetic enzyme 6-hydroxymellein synthase
F. Kurosaki (Japan) 6

Regular papers

Ferrocyanide-peroxidase activity of cytochrome *c* oxidase
A.A. Konstantinov, T. Vygodina, N. Capitanio and S. Papa (Russia, Italy) 11

Intramolecular electron transport in quinoprotein alcohol dehydrogenase of *Acetobacter methanolicus*: a redox-titration study
J. Frébortova, K. Matsushita, H. Arata and O. Adachi (Japan) 24

Reconstitution of cytochrome *b*-560 (QPs1) of bovine heart mitochondrial succinate–ubiquinone reductase
G.Y. Lee, J. Zhu, L. Yu and C.-A. Yu (USA) 35

The xanthophyll cycle of higher plants: influence of antenna size and membrane organization
A. Färber and P. Jahns (Germany) 47

Reduction of the plastoquinone pool by exogenous NADH and NADPH in higher plant chloroplastsCharacterization of a NAD(P)H–plastoquinone oxidoreductase activity
S. Corneille, L. Cournac, G. Guedeney, M. Havaux and G. Peltier (France) 59

Unisite ATP hydrolysis by soluble *Rhodospirillum rubrum* F_1–ATPase is accelerated by Ca^{2+}
E. Maldonado, G. Dreyfus, J.J. García, A. Gómez-Puyou and M.T. De Gómez-Puyou (Mexico) 70

Fluorescent effector as a probe of the allosteric equilibrium in methemoglobin
R. Serbanescu, L. Kiger, C. Poyart and M.C. Marden (Romania, France) 79

Interaction of positively charged amino acid residues of recombinant, cyanobacterial ferredoxin: $NADP^+$ reductase with ferredoxin probed by site directed mutagenesis
S. Schmitz, M. Martínez-Júlvez, C. Gómez-Moreno and H. Böhme (Germany, Spain) 85

Corrigendum

Corrigendum to 'Determination of photochemical loss in leaves by an open-ended photothermal cell' [*Biochimica et Biophysica Acta*, 1321 (1997) 179–182]
M.H. De Paula, C.A. Vinha, M.A. De Arruda Cortez and S. Placência (Brazil) 94

Information for Contributors *vii*

Rapid report

Low and high temperature dependence of minimum F_0 and maximum F_M chlorophyll fluorescence in vivo
P. Pospíšil, J. Skotnica and J. Nauš (Czech Republic) 95

Review

Uncoupling: new approaches to an old problem of bioenergetics
V.P. Skulachev (Russian Federation) 100

Regular papers

Two NADH:ubiquinone oxidoreductases of *Azotobacter vinelandii* and their role in the respiratory protection
Y.V. Bertsova, A.V. Bogachev and V.P. Skulachev (Russia) 125

The role of aromatic and acidic amino acids in the electron transfer reaction catalyzed by spinach ferredoxin-dependent glutamate synthase
M. Hirasawa, J.K. Hurley, Z. Salamon, G. Tollin, J.L. Markley, H. Cheng, B. Xia and D.B. Knaff (USA) 134

Non-photochemical quenching of chlorophyll fluorescence in photosynthesis. 5-hydroxy-1,4-naphthoquinone in spinach thylakoids as a model for antenna based quenching mechanisms
S. Vasil'ev, S. Wiebe and D. Bruce (Canada) 147

Regulation of thermal dissipation of absorbed excitation energy and violaxanthin deepoxidation in the thylakoids of *Lactuca sativa*. Photoprotective mechanism of a population of photosystem II centers
M.J. Delrieu (France) 157

Information for Contributors *vii*

Rapid reports

Electron transfer in the heliobacterial reaction center: evidence against a quinone-type electron acceptor functioning analogous to A_1 in photosystem I
K. Brettel, W. Leibl and U. Liebl (France) 175

Light-induced structural changes in photosynthetic reaction centres studied by ESEEM of spin-correlated $D^+Q_A^-$ radical pairs
I.V. Borovykh, S.A. Dzuba, I.I. Proskuryakov, P. Gast and A.J. Hoff (Netherlands, Russian Federation) 182

Regular papers

Determination of distances from tyrosine D to Q_A and chlorophyll$_Z$ in photosystem II studied by '2 + 1' pulsed EPR
K. Shigemori, H. Hara, A. Kawamori and K. Akabori (Japan) 187

Redox properties of an H-subunit-depleted photosynthetic reaction center from *Rhodopseudomonas viridis*
M. Hara, T. Kaneko, C. Nakamura, Y. Asada and J. Miyake (Japan) 199

Periodate-oxidized ATP stimulates the permeability transition of rat liver mitochondria
W. Henke, T. Hagen, K. Jung and S.A. Loening (Germany) 209

Glutamate residues at positions 219 and 252 in the *a*-subunit of the *Escherichia coli* ATP synthase are not functionally equivalent
L.P. Hatch, G.B. Cox and S.M. Howitt (Australia) 217

Fiber-type-related differences in the enzymes of a proposed substrate cycle
R.A. Howlett and W.T. Willis (USA) 224

pH dependence of the function of sodium ion extrusion systems in *Escherichia coli*
T. Sakuma, N. Yamada, H. Saito, T. Kakegawa and H. Kobayashi (Japan) 231

Contents Vol. 1363 239

Author Index 241